Remarks/Arguments:

Claims 1, 3-9, 11-20, and 22-36 are pending in this application. During previous prosecution, the Examiner has asserted a provisional non-statutory double patenting rejection in light of pending U.S. Patent Application No. 09/654,202. The Applicant will respond to the double-patenting rejection if and when it becomes non-provisional. The Examiner has also previously rejected all pending claims under 35 U.S.C. § 103(a) as being obvious over cited references to Wenig and Yaginuma (as to claims 1, 4-7, 9, 11-12, 14-20, and 22-36); and obvious over references to Wenig, Yaginuma and Hunt (as to claims 3, 8 and 13).

As an overview, the abstract of Wenig recites that it is directed to a system and method that captures transmissions during a user session between a client and server. Requests from a client and responses by the server are captured and stored, which an analyzer may use to recreate the user session. The detailed description of Wenig teaches at col. 5, lines 25-30 that the user session is recreated by generating the identical screens that were viewed by the user. Alternative embodiments are seen to describe the various screens being generated offline or near real-time (col. 5, lines 33-39). The stated advantages of an analyst determining how a client moves through an application and isolating errors as in col. 5, lines 1-18 are not seen to suggest any embodiments other than recreating the screens or webpages identical to those of a user session.

The abstract of Yaginuma describes an apparatus and method for displaying the results of a data mining process as multi-dimensional data, such as on a parallel coordinate axis. A user interface generates an axis of the display corresponding to the result of the data mining process, adds the axis to the parallel coordinate axis and displays the result of the data mining process on the added axis. The numerous examples of Yaginuma are seen to teach that the axes of the parallel coordinate display represent search criteria used in the data mining process, so that all data retrieved by the search are displayed as a line that intersects each parallel axis of the display.

Four elements of claim 1 are believed to distinguish over the combined references:

(A) deriving one or more micro-conversions from (the) one or more shopping sessions, the micro-conversion comprising a shopper's conversion from one shopping step to another;

(B) the first visualization comprising at least three axes that represent shopping steps;

(C) at least one or more lines intersecting less than all of the axes; and

(D) at least one or more lines terminating at the axis wherein the at least one shopping session ends.

The Examiner has previously asserted that Wenig teaches element (A), and the display and data mining of Yaginuma applied to the data of Wenig teaches elements (B) through (D).

Claims 1, 23, and 30 constitute the pending independent claims, and claims 23 and 30 recite similar to element (B) above but for data relating to a virtual path that is received over a network. Neither Wenig, Yaginuma, or Hunt is seen to teach element (B). Claims 23 and 30 further each include a claim element similar to element (C) above, where a line representing the virtual path does not intersect or cross every axis that represents steps along that path. Therefore, elements (B) and (C) are discussed first.

As to element (B), Yaginuma is not seen to operate on the underlying data that is displayed, apart from searching it. Consistent with the comments respecting element (A) of claim 1, Wenig is seen to capture and store only the screens of a shopping session visited by a user. Therefore, it is respectfully suggested that the combination of Wenig and Yaginuma does not teach or suggest, to one of normal skill in the art, a visualization where three axes represent shopping steps. Those shopping steps are the result of a micro-conversion, and neither Wenig nor Yaginuma include in the stored data a micro-conversion comprising shopping steps.

Element (C) is believed to clearly represent a distinguishing feature of claim 1 vis a vis the combination of references, because Yaginuma is seen to teach away from displaying a line that intersects less than all parallel (or radial) axes of a display, and neither reference suggests that valuable information may be gleaned from viewing a user's shopping steps against a preferred result (e.g., a user executing shopping steps but not making a purchase).

In every example of Yaginuma, only polygonal lines that intersect each and every parallel (or radial) axis are displayed. This is a necessary result of the reference due to the nature of the data mining process: each parallel/radial axis represents a database search criteria that is used in data mining. Any data whose graph would not intersect each and every parallel/radial axis of the Yaginuma display is not returned from the data mining process, and therefore cannot be displayed.

The Examiner has asserted previously that, when Yaginuma's mining and displaying are used with the user session data of Wenig, it is implicit that a polygonal line would not intersect all parallel axes of the display where the underlying data did not meet and axis' criteria. This appears to be improper hindsight, because Wenig is not seen to compare the stored user session against a preferred path of web pages, or even to recognize that a user executing some but not all of a set of preferred steps might yield valuable information. Wenig's user session data constitutes a recreation of screens visited by a user. Displaying this data according to Yaginuma appears to yield only polygonal lines that intersect every parallel axis of the display, because any data that would not intersect every axis is not returned by the data mining of Yaginuma.

An example may clarify the above paragraph. Notwithstanding elements (A) and (B) of claim 1, assume *arguendo* that a Wenig database stores the following data, where columns represent web pages of an online store, rows indicate a shopping session for the indicated user, and an X indicates the named user visited the particular web page:

	Storefront page	Product page	Checkout page	Payment page	Purchase
User 1	X	X	X	X	X
User 2	X	X			
User 3	X	X	X	X	
User 4	X	X	X		
User 5	X	X	X	X	

Table 1

Applicant submits that a Yaginuma data mining operation on the above data would return only User 1, as in the digram below.

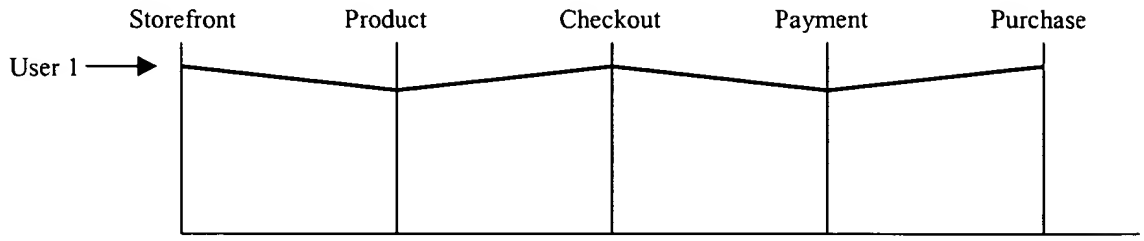


Figure 1

The resulting Yaginuma display, wherein the columns of the Table 1 database are represented as parallel axes, would show one polygonal line intersecting each and every one of the five parallel axes. Yaginuma teaches that the parallel axes of the display represent criteria used to search the database. Any user entry in the Table 1 database above that fails any of the search criteria, such as Users 2-5 above, are not retreived from the database and are not displayed by Yaginuma.

Conversely, claim 1 operating on the above data could display all five users. The resulting display might exhibit polygonal lines as depicted below, where Users 1 through 5 are depicted top to bottom and offset from one another to distinguish each.

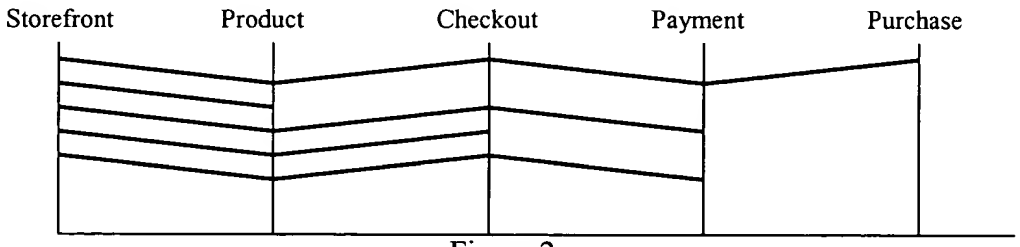


Figure 2

In teaching that the parallel axes of the display represent the different search criteria, Yaginuma necessarily teaches away from displaying a line representing data that intersects less than all parallel axes because such data would not be retreived by the database search. Specifically, Yaginuma teaches displaying the *same* number of coordinate axes as fields detected (col. 6,

lines 43-45); searching the entire record and obtaining values for *each* field (col. 6, lines 49-50); and connecting the data points with a line (col. 7, lines 1-2) (emphases added). Yaginuma's fields correspond to the parallel axes of the display. Applying those teachings to Table 1, Users 2-5 have undetected fields or fields with no value entered, so they are not returned in the Yaginuma search regardless of whether or not it is Wenig's data being searched.

Adding further parallel axes to the Yaginuma display causes a subsequent mining of data (potentially mining only of those data entries previsouly retreived), and the resulting display still exhibits polygonal lines intersecting every parallel axis. The addition of further parallel axes is described in Yaginuma at Figures 19-23 and col. 11, line 66 to col. 13, line 20. While the text focuses on the mechanics of adding an axis, each and every polygonal line in the drawings related to an added axis continues to intersect every parallel axis of Yaginuma.

Applicant perceives overlapping lines but no non-intersecting line in Yaginuma's Figure 32, which is referenced by the Examiner as an example of a non-intersecting line. Were Figure 32 to use a parallel axis as representing somehting other than a database search criteria, it is reasonable to expect that Yaginuma would reference such in the text since that would represent a fundamentally different display than other Yaginuma figures. No such explanation is seen. Applicant respectfully requests that the Examiner cite a text passage in support of a non-intersecting interpretation, either for Yaginuma's Figure 32 or elsewhere in the reference should the previous rejection be re-asserted.

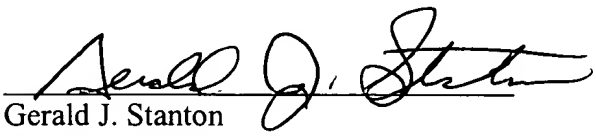
As to element (A), Wenig is not seen to teach or suggest deriving a micro-conversion from a shopping session. While Wenig does note at col. 5, lines 8-11 that analysis may be of a user's navigation through a particular application that results in a purchase, the underlying data that Wenig captures and stores remains the user requests and server responses, not a micro-conversion of them. Claim 1 recites both extracting a shopping session and deriving a micro-conversion from it. While Wenig may teach the former, there appears no teaching or suggestion as to the latter. Yaginuma is not asserted as including teachings relevant to element (A). Absent allowance or additional references, it is respectfully requested that the Examiner

specifically point out where Wenig may teach or suggest deriving from a shopping session a micro-conversion of one shopping step to another if this rejection is re-asserted.

As to element (D) of claim 1, no combination of Wenig and Yaginuma is seen to teach or suggest displaying a polygonal line that terminates at an axis wherein the shopping session ends yet does not intersect all parallel axes. Assuming *arguendo* as for element (C) above, if the combination of Wenig and Yaginuma displays a polygonal line that terminates at the end of a shopping session, the axis representing the end of that shopping session would necessarily be the final axis, and the line would intersect all parallel axes. This is because the Yaginuma parallel axes represent search criteria that any retrieved data must satisfy. Adding another parallel axis subsequent to the axis where the shopping session ends would result, as noted above, in Yaginuma's subsequent database search dropping from the display any polygonal lines that once intersected all axes but that no would longer do so given the added axis.

Applicant respectfully requests that the Examiner withdraw all rejections and pass claims 1, 3-9, 11-20, and 22-36 to issuance. Alternatively, it is respectfully requested that the Examiner specifically point out in the references where the above aspects of the pending claims may be taught or suggested to the requisite level of ordinary skill. The undersigned remains available to discuss via teleconference any appropriate issues that may remain, at the Examiner's discretion.

Respectfully submitted:



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